**Permit #:** **28.9904-02**

**Effective Date:** **Draft**

**Expiration Date:** **May 2, 2012**

# SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

# MINOR AIR QUALITY PERMIT

**Steven M. Pirner, Secretary**
**Department of Environment and Natural Resources**

**Under the South Dakota Air Pollution Control Regulations**

Pursuant to Chapter 34A-1-21 of the South Dakota Codified Laws and the Air Pollution Control Regulations of the State of South Dakota and in reliance on statements made by the owner designated below, a permit to operate is hereby issued by the Secretary of the Department of Environment and Natural Resources. This permit authorizes such owner to operate the source unit(s) at the location designated below and under the listed conditions.

## A. Owner

### 1. Company Name and Mailing Address

Ellsworth Air Force Base, USAF
28 CES/CEV 2013 Scott Drive
Ellsworth AFB, South Dakota 57706-4710

### 2. Actual Source Location if Different from Above

Same as above

### 3. Permit Contact

Jens Christensen
Ellsworth Air Quality and EMS Program Manager
(605) 385-6625

### 4. Facility Contact

Same as above

### 5. Responsible Official

Colonel Joseph Brown
Commander, 28th Bomb Wing

## B. Permit Revisions or Modifications

Modification issued September 17, 2007 to allow installation of emergency generator applicable to New Source Performance Standards

Modification issued November 27, 2007 to allow installation of 4 emergency generators applicable to New Source Performance Standards

## C. Type of Operation

Air Force Base with various primary and support operations

**Table of Contents**

**Table of Contents**

# 1.0 STANDARD CONDITIONS

**1.1 Operation of source.** In accordance with Administrative Rules of South Dakota (ARSD) 74:36:04:15(9), the owner or operator shall operate the units, controls, and processes as described in Table #1 and in accordance with the statements, representations, and supporting data contained in the complete permit application submitted and dated April 02, 2003, July 18, 2004, August 10, 2007, October 4, 2007and **April 7, 2009** unless modified by the conditions of this permit. The application consists of the application forms, supporting data, and supplementary correspondence. If the owner or operator becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in an application, such information shall be promptly submitted.

**Table #1**
**Description of Permitted Units, Operations, and Processes**

| Description | Maximum Operating Rate / Capacity | Control Device |
|---|---|---|
| **FUEL STORAGE TANKS** | | |
| Ast-501 – 1996 Brown Minneapolis aboveground storage tank for gasoline at Base Service Station | 12,000 gallons | Not applicable |
| Ast-503 – Tank 17 at Area D, 1997 Brown Minneapolis aboveground storage tank for gasoline | 10,000 gallons | Not applicable |
| Int Tank-002 – Tank16 at Area D, 1985 Salt Creek Welding aboveground storage tank with internal floating roof for JP8 | 2.31 million gallons | Not applicable |
| **EXTERNAL COMBUSTION SOURCES** | | |
| Extcomb-101-1, Burnham Corporation natural gas and propane fired boiler in Building 102 | 5.23 million Btus per hour heat input | Not applicable |
| Extcomb-101-2, Burnham Corporation natural gas and propane/air mixture fired boiler in Building 102 | 5.23 million Btus per hour heat input | Not applicable |
| Extcomb-102-1, HB Smith natural gas and propane fired boiler in Building 410 | 9.80 million Btus per hour heat input | Not applicable |
| Extcomb-102-2, HB Smith natural gas and propane fired boiler in Building 410 | 9.80 million Btus per hour heat input | Not applicable |
| Extcomb-109, Rite Engineering & Manufacturing Corporation natural gas and propane fired boiler in Building 7229 | 7.60 million Btus per hour heat input | Not applicable |
| Extcomb-113, Well-McCain natural gas and propane fired boiler in Building 7239 | 4.76 million Btus per hour heat input | Not applicable |
| Extcomb-119-1, Rite Engineering & Manufacturing Corporation natural gas and propane/air mixture fired boiler in Building 7250 | 3.62 million Btus per hour heat input | Not applicable |
| Extcomb-119-2, Rite Engineering & Manufacturing Corporation natural gas and propane fired boiler in Building 7250 | 3.62 million Btus per hour heat input | Not applicable |
| Extcomb-126, Rite Engineering & Manufacturing Corporation natural gas and propane fired boiler in Building 7268 | 8.00 million Btus per hour heat input | Not applicable |

| Description | Maximum Operating Rate / Capacity | Control Device |
|---|---|---|
| Extcomb-127, Rite Engineering & Manufacturing Corporation natural gas and propane fired boiler in Building 7269 | 7.60 million Btus per hour heat input | Not applicable |
| Extcomb-130-1, Kewanee Boiler Corporation natural gas and propane fired boiler in Building 7506 | 5.23 million Btus per hour heat input | Not applicable |
| Extcomb-130-2, Kewanee Boiler Corporation natural gas and propane fired boiler in Building 7506 | 5.23 million Btus per hour heat input | Not applicable |
| Extcomb-132-1, AJAX natural gas and propane fired boiler in Building 7520 | 7.00 million Btus per hour heat input | Not applicable |
| Extcomb-132-2, AJAX natural gas and propane fired boiler in Building 7520 | 7.00 million Btus per hour heat input | Not applicable |
| Extcomb-133, Burnham Corporation natural gas and propane fired boiler in Building 7616 | 3.60 million Btus per hour heat input | Not applicable |
| Extcomb-136, Kewanee Boiler Corporation natural gas and propane fired boiler in Building 7622 | 5.31 million Btus per hour heat input | Not applicable |
| Extcomb-138-1, Farrar & Trefts natural gas and propane fired boiler in Building 8201 | 4.05 million Btus per hour heat input | Not applicable |
| Extcomb-138-2, Farrar & Trefts natural gas and propane fired boiler in Building 8201 | 4.05 million Btus per hour heat input | Not applicable |
| Extcomb-139-1, 1984 Federal Boiler Company natural gas and propane fired boiler in Building 88031 | 6.30 million Btus per hour heat input | Not applicable |
| Extcomb-139-2, 1984 Federal Boiler Company natural gas and propane fired boiler in Building 88031 | 6.30 million Btus per hour heat input | Not applicable |
| Extcomb-141, 1984 Federal Boiler Company natural gas and propane/air mixture fired boiler in Building 88240 | 6.30 million Btus per hour heat input | Not applicable |
| Extcomb-142-1, Kewanee Boiler Corporation natural gas and propane fired boiler in Hospital, Building 5902 | 6.28 million Btus per hour heat input | Not applicable |
| Extcomb-142-2, Kewanee Boiler Corporation natural gas and propane fired boiler in Hospital, Building 5902 | 6.28 million Btus per hour heat input | Not applicable |
| Extcomb-142-3, Kewanee Boiler Corporation natural gas and propane fired boiler in Hospital, Building 5902 | 6.28 million Btus per hour heat input | Not applicable |
| Extcomb-142-4, natural gas and propane fired boiler in Hospital | 6.40 million Btus per hour heat input | Not applicable |
| Extcomb-324, Kewanee Boiler Corporation natural gas and propane fired boiler in Building 7624 | 5.31 million Btus per hour heat input | Not applicable |
| Extcomb-325, Kewanee Boiler Corporation natural gas and propane fired boiler in Building 7621 | 5.55 million Btus per hour heat input | Not applicable |
| Extcomb-346-1, L.E.S. natural gas and propane fired boiler in Building 7709 | 4.43 million Btus per hour heat input | Not applicable |
| Extcomb-346-2, Weil-McLain natural gas and propane fired boiler in Building 7709 | 5.95 million Btus per hour heat input | Not applicable |
| Extcomb-477-1, Rite Engineering & Manufacturing Corporation | 6.50 million Btus | Not |

| Description | Maximum Operating Rate / Capacity | Control Device |
|---|---|---|
| natural gas and propane fired boiler in Building 7234 | per hour heat input | applicable |
| Extcomb-477-2, Rite Engineering & Manufacturing Corporation natural gas and propane fired boiler in Building 7234 | 6.50 million Btus per hour heat input | Not applicable |
| Extcomb-478-1, Rite Engineering & Manufacturing Corporation natural gas and propane fired boiler in Building 7236 | 4.25 million Btus per hour heat input | Not applicable |
| Extcomb-478-2, Rite Engineering & Manufacturing Corporation natural gas and propane fired boiler in Building 7236 | 4.25 million Btus per hour heat input | Not applicable |
| Extcomb-563-1, Kewanee Boiler Corporation natural gas and propane fired boiler in Building 7510 | 4.71 million Btus per hour heat input | Not applicable |
| Extcomb-563-2, Kewanee Boiler Corporation natural gas and propane fired boiler in Building 7510 | 4.71 million Btus per hour heat input | Not applicable |
| Extcomb-564, Kewanee Boiler Corporation natural gas and propane fired boiler in Building 7510 | 4.71 million Btus per hour heat input | Not applicable |
| Extcomb-566-1, Kewanee Boiler Corporation natural gas and propane fired boiler in Building 7502 | 5.31 million Btus per hour heat input | Not applicable |
| Extcomb-574-1, 2002 Rite Engineering & Manufacturing Corporation natural gas and propane fired boiler in Building 8210 | 3.75 million Btus per hour heat input | Not applicable |
| Extcomb-574-2, 2002 Rite Engineering & Manufacturing Corporation natural gas and propane fired boiler in Building 8210 | 3.75 million Btus per hour heat input | Not applicable |
| **INTERNAL COMBUSTION ENGINE SOURCES** | | |
| Intcomb-149, 1981 Caterpillar diesel fired generator in Building 6000 | 600 kilowatts heat output | Not applicable |
| Intcomb-131, 1987 Cummins diesel fired generator in Building 7255 | 400 kilowatts heat output | Not applicable |
| Intcomb-104, 1988 Onan diesel fired generator in Building 7438A | 500 kilowatts heat output | Not applicable |
| Intcomb-130, 1987 Cummins, diesel fired generator in Building 7273 | 350 kilowatts heat output | Not applicable |
| Intcomb-107, 1980 Detroit, diesel fired boiler in Building 88113 | 540 kilowatts heat output | Not applicable |
| Intcomb-106, 1980 Detroit, diesel fired boiler in Building 88138 | 540 kilowatts heat output | Not applicable |
| Intcomb-203, 2005 Cummins diesel fired generator in Building 7918 | 400 kilowatts heat output | Not applicable |
| Intcomb-7502, 2000 Cummins diesel fired generator in Building 7502 | 400 kilowatts heat output | Not applicable |
| Intcomb-7501, 2006 Caterpillar diesel fired generator in RAPCON – Building 7501 | 600 kilowatts heat output | Not applicable |
| Intcomb-920 – 2007 Cummins, DFEG-5789270, diesel fired generator in Pumphouse – Building 920 | 350 kilowatts electrical output | Not applicable |
| Intcomb-88490 – 2007 Katolight, D550FRV4, diesel fired | 550 kilowatts | Not |

| Description | Maximum Operating Rate / Capacity | Control Device |
|---|---|---|
| generator for firepump in Building 88490 | electrical output | applicable |
| Intcomb-7263 – 2007 Katolight, D500FRV4, diesel fired generator for firepump in Building 7263 | 500 kilowatts electrical output | Not applicable |
| Intcomb-4040 – 2007 Cummins, DQFAC, diesel fired generator in Financial Services – Building 4040 | 900 kilowatts electrical output | Not applicable |
| **SURFACE COATING** | | |
| Paint Bth-001 – 1987, Binks air atomization HVLP paint booth in Building 102, Transportation | Not applicable | Exhaust filters |
| Paint Bth-004 – 1999, Binks air atomization HVLP paint booth for aerospace ground equipment and corrosion control in Building 7234 | Not applicable | Exhaust filters |

**1.2 Duty to comply.** In accordance with ARSD 74:36:04:15(12), the owner or operator shall comply with the conditions of this permit. An owner or operator who knowingly makes a false statement in any record or report or who falsifies, tampers with, or renders inaccurate, any monitoring device or method is in violation of this permit. A violation of any condition in this permit is grounds for enforcement, reopening this permit, permit termination, or denial of a permit renewal application. The owner or operator, in an enforcement action, cannot use the defense that it would have been necessary to cease or reduce the permitted activity to maintain compliance. This permit does not convey any property rights or any exclusive privilege. The owner or operator shall provide any information requested by the Secretary to determine compliance or whether cause exists for reopening or terminating this permit. This permit does not waive compliance with federal, state, or local laws and ordinances.

**1.3 Property rights or exclusive privileges.** In accordance with ARSD 74:36:04:15(12), the State's issuance of this permit, adoption of design criteria, and approval of plans and specifications does not convey any property rights of any sort, any exclusive privileges, any authorization to damage, injure or use any private property, any authority to invade personal rights, any authority to violate federal, state or local laws or regulations, or any taking, condemnation or use of eminent domain against any property owned by third parties. The State does not warrant that the owner's or operator's compliance with this permit, design criteria, approved plans and specifications, and operation under this permit, will not cause damage, injury or use of private property, an invasion of personal rights, or violation of federal, state or local laws or regulations. The owner or operator is solely and severally liable for all damage, injury or use of private property, invasion of personal rights, infringement of federal, state or local laws and regulations, or taking or condemnation of property owned by third parties, which may result from actions taken under the permit.

**1.4 Penalty for violating a permit condition.** In accordance with South Dakota Codified Laws (SDCL) 34A-1, a violation of a permit condition may subject the owner or operator to civil or criminal prosecution, a state penalty of not more than $10,000 per day per violation, injunctive action, administrative permit action, and other remedies as provided by law.

**1.5 Inspection and entry.** In accordance with SDCL 34A-1-41, the owner or operator shall allow the Secretary to:

1. Enter the premises where a regulated activity is located or where pertinent records are stored;
2. Have access to and copy any records that are required under this permit;
3. Inspect operations regulated under this permit; and/or
4. Sample or monitor any substances or parameters for the purpose of assuring compliance.

**1.6 Severability.** In accordance with ARSD 74:36:04:15(11), any portion of this permit that is void or challenged shall not affect the validity of the remaining permit requirements.

**1.7 Permit termination, modification, or revocation.** In accordance with ARSD 74:36:04:27, the Secretary may recommend that the Board of Minerals and Environment terminate, modify, or revoke this permit for violations of SDCL 34A-1 or the federal Clean Air Act or for nonpayment of any outstanding enforcement penalty.

**1.8 Credible evidence.** In accordance with ARSD 74:36:13:07, credible evidence may be used for the purpose of establishing whether the owner or operator has violated or is in violation of this permit. Credible evidence is as follows:

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at the source:
   a. A monitoring method approved for the source pursuant to 40 CFR § 70.6(a)(3) and incorporated in this permit;
   b. Compliance methods specified in an applicable plan; and
2. The following testing, monitoring, or information gathering methods are presumptively credible testing, monitoring, or information-gathering methods:
   a. Any monitoring or testing methods approved in this permit, including those in 40 CFR Parts 51, 60, 61, and 75; or
   b. Other testing, monitoring, or information-gathering methods that produce information comparable to that produced by any method in section (1) or (2)(a).

## 2.0 PERMIT AMENDMENT AND MODIFICATION CONDITIONS

**2.1 Permit flexibility.** In accordance with ARSD 74:36:04:18, the owner or operator shall have the flexibility to make changes to the source during the term of this permit. The owner or operator shall provide the Secretary written notice at least seven days in advance of the proposed change. The written notice shall include a brief description of the change, the date on which the change is to occur, any change in emissions, and the proposed changes to this permit.

The Secretary will notify the owner or operator whether the change is an administrative permit amendment, a minor permit amendment, or a permit modification. A proposed change that is considered an administrative permit amendment or a minor permit amendment can be completed immediately after the Secretary receives the written notification. The owner or operator must

comply with both the applicable requirements governing the change and the proposed permit terms and conditions until the Secretary takes final action on the proposed change.

A proposed change that is considered a modification can not be constructed until the Secretary takes final action on the proposed change. Permit modifications are subject to the same procedural requirements, including public comment, as the original permit issuance except that the required review shall cover only the proposed changes.

**2.2 Administrative permit amendment.** In accordance with ARSD 74:36:04:20, the Secretary has 15 days from receipt of a written notice to verify that the proposed change is an administrative permit amendment. The Secretary considers a proposed change an administrative permit amendment if the proposed change accomplishes one of the following:

1. Corrects typographical errors;
2. Changes the name, address, or phone number of any person identified in this permit or provides a similar minor administrative change at the source;
3. Requires more frequent monitoring or reporting by the source;
4. The ownership or operational control of a source changes and the Secretary determines that no other change in this permit is necessary. However, the new owner must submit a certification of applicant form and a written statement specifying the date for transfer of operating permit responsibility, coverage, and liability; or
5. Any other change that the Secretary determines to be similar to those requirements in this condition.

**2.3 Minor permit amendment.** In accordance with ARSD 74:36:04:20.04, the Secretary has 90 days from receipt of a written notice to take final action on a minor permit amendment. Final action consists of issuing or denying a minor permit amendment or determining that the proposed change is a permit modification. The Secretary considers a proposed change to be a minor permit amendment if the proposed change:

1. Does not violate any applicable requirements;
2. Does not involve significant changes to existing monitoring, reporting, or record keeping requirements;
3. Does not require or change a case-by-case determination of an emission limit or other standard, a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis; or
4. Does not seek to establish or change a permit term or condition for which the source has assumed to avoid an applicable requirement, a federally enforceable emission cap, or an alternative emission limit. An alternative emission limit is approved pursuant to regulations promulgated under section 112(i)(5) of the federal Clean Air Act.

**2.4 Permit modification**. In accordance with ARSD 74:36:04:21, an owner or operator may apply for a permit modification. A permit modification is defined in ARSD 74:36:01:10 as a physical change in or change in the operation of a source that results in at least one of the following:

1. An increase in the amount of an air pollutant emitted by the source or results in the emission of an air pollutant not previously emitted;
2. A significant change to existing monitoring, reporting, or record keeping requirements in the permit;
3. The change requires or changes a case-by-case determination of an emission limit or other standard, a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis; or
4. The change seeks to establish or change a permit term or condition for which there is a corresponding underlying applicable requirement that the source has assumed to avoid an applicable requirement, a federally enforceable emissions cap assumed to avoid classification as a modification under a provision of the Title I of the Clean Air Act, or an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Clean Air Act.

Permit modifications are subject to the same procedural requirements, including public comment, as the original permit issuance except that the required review shall cover only the proposed changes.

**2.5 Permit revision.** In accordance with ARSD 74:36:04:24, the Secretary may reopen and revise this permit to meet requirements of SDCL 34A-1 or the federal Clean Air Act.

**2.6 Testing new fuels or raw materials.** In accordance with ARSD 74:36:11:04, an owner or operator may request permission to test a new fuel or raw material to determine if it is compatible with existing equipment before requesting a permit amendment or modification. A complete test proposal shall consist of the following:

1. A written proposal that describes the new fuel or raw material, operating parameters, and parameters that will be monitored and any testing associated with air pollutant emissions during the test;
2. An estimate of the type and amount of regulated air pollutant emissions that will result from the proposed change; and
3. The proposed schedule for conducting the test.

The Secretary shall approve, conditionally approve, or deny in writing the test proposal within 45 days after receiving a complete proposal. Approval conditions may include changing the test schedule or pollutant sampling and analysis methods. Pollutant sampling and analysis methods may include, but are not limited to performance testing, visible emission evaluation, fuel analysis, dispersion modeling, and monitoring of raw material or fuel rates.

If the Secretary determines that the proposed change will result in an increase in the emission of a regulated air pollutant or result in the emission of an additional regulated air pollutant, the Secretary shall give public notice of the proposed test for 30 days. The Secretary shall consider all comments received during the 30-day public comment period before making a final decision on the test.

**2.7 Changing aviation fuel stored in Int Tank-002.** In accordance with ARSD 74:36:07:13, as referenced to 40 Codified Federal Regulations (CFR) § 60.110a, the owner or operator must

modify this permit before storing aviation fuels in Int Tank-002 with a Reid vapor pressure or true vapor pressure equal to or greater than 6.9 kilo Pascals.

## 3.0 PERMIT RENEWAL REQUIREMENTS

**3.1** **Permit effective**. In accordance with ARSD 74:36:04:05, this permit shall expire five years from date of issuance unless reopened or terminated for cause.

**3.2** **Permit renewal**. In accordance with ARSD 74:36:04:06, the owner or operator shall submit an application for a permit renewal at least 90 days before the date of permit expiration if the owner or operator wishes to continue an activity regulated by this permit. The current permit shall not expire and shall remain in effect until the Secretary takes final action on the timely permit renewal application.

**3.3** **Permit expiration**. In accordance with ARSD 74:36:04:16, permit expiration terminates the owner's or operator's right to operate any unit covered by this permit.

## 4.0 RECORD KEEPING AND REPORTING REQUIREMENTS

**4.1** **Record keeping and reporting**. In accordance with ARSD 74:36:04:15(10), the owner or operator shall maintain all monitoring data, records, reports, and pertinent information specified by this permit for five years from the date of sample, measurement, report, or application. The records shall be maintained on site for the first two years and may be maintained off site for the last three years. All records must be made available to the Secretary for inspection. All notifications and reports shall be submitted to the following address:

PMB 2020 - South Dakota Department of Environment and Natural Resources
Air Quality Program
523 E. Capitol, Joe Foss Building
Pierre, SD 57501-3181

**4.2** **Signatory Requirements**. In accordance with ARSD 74:36:04:07, all applications submitted to the Secretary shall be signed and certified by a responsible official. A responsible official is a responsible corporate officer for a corporation or a general partner or the proprietor for a partnership or sole proprietorship, respectively. All reports or other information submitted to the Secretary shall be signed and certified by a responsible official or a duly authorized representative. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above and submitted to the Secretary; and
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position

of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.

The responsible official shall notify the Secretary if an authorization is no longer accurate. The new duly authorized representative must be designated prior to or together with any reports or information to be signed by a duly authorized representative.

**4.3 Certification statement**. All documents required by this permit, including application forms, reports, and compliance certification, must be certified by a responsible official or a duly authorized representative. The certification shall include the following statement:

> "I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document and all attachments are true, accurate, and complete."

**4.4 Monthly records.** In accordance with ARSD 74:36:04:15(10), the owner or operator shall calculate and/or record the following amounts each month:

1. The number of hours each "Internal Combustion Engine Sources" listed in Table #1 operated during the month and during the 12-month rolling period for that month. The operating time shall be based on non re-settable clocks; and
2. The amount of natural gas consumed, in dekatherms, in the "External Combustion Sources" listed in Table #1 during the month and during the 12-month rolling period for that month. Natural gas is assumed to provide 1.05 dekatherm of energy per thousand cubic feet of gas consumed.

A 12-month rolling total for the hours of operations and the amount of natural gas consumed shall be calculated every month using that month's value and the previous 11 months' values.

**4.5 Annual report.** In accordance with ARSD 74:36:04:15(10), the owner or operator shall submit an annual report by March 1 of each year. The report shall include the following:

1. Name of facility, permit number, reference to this permit condition, and identify the submittal as an annual report;
2. The number of hours each "Internal Combustion Engine Sources" listed in Table #1 operated during the 12-month rolling period for each month in the reporting period; and
3. The amount of natural gas consumed, in dekatherms, in the "External Combustion Sources" listed in Table #1 during the 12-month rolling period for each month in the reporting period.

**4.6 Submittal of risk management plan.** In accordance with 40 CFR § 68.215(a), the owner or operator shall submit a risk management plan to the EPA by June 21, 1999, or the date when a threshold quantity of propane is first present on site, whichever is later.

**4.7 Reporting permit violations**. In accordance with ARSD 74:36:04:15(10), the owner or operator shall report all permit violations. A permit violation should be reported as soon as possible, but no later than the first business day following the day the violation was discovered. The permit

violation may be reported by telephone to the South Dakota Department of Environment and Natural Resources at (605) 773-3151 or by FAX at (605) 773-5286.

A written report shall be submitted within five days of discovering the permit violation. Upon prior approval from the Secretary, the submittal deadline for the written report may be extended up to 30 days. The written report shall contain:

1. Description of the permit violation and its cause(s);
2. Duration of the permit violation, including exact dates and times; and
3. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the permit violation.

## 5.0 CONTROL OF REGULATED AIR POLLUTANTS

**5.1** **Visibility limit.** In accordance with ARSD 74:36:12:01, the owner or operator may not discharge into the ambient air an air contaminant of a density equal to or greater than that designated as 20 percent opacity from any permitted unit, operation, or process listed in Table #1. This provision does not apply when the presence of uncombined water is the only reason for failure to meet the requirement.

**5.2** **Visibility exceedances.** In accordance with ARSD 74:36:12:02, an exceedance of the operating limit in permit condition 5.1 is not considered a violation during brief periods of soot blowing, start-up, shutdown, or malfunctions. A malfunction is described as any sudden and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. A failure caused entirely or in part by poor maintenance, careless operation, preventable equipment breakdown, or any other cause within the control of the owner or operator of the source is not a malfunction and is considered a violation.

**5.3** **Total suspended particulate limits.** In accordance with ARSD 74:36:06:02(1), the owner or operator shall not allow the emission of total suspended particulate in excess of the emission limit specified in Table #2 for the appropriate permitted unit, operations, and process.

**Table #2**
**Total Suspended Particulate Emission Limit**

| Description | Emission Limit |
|---|---|
| External Combustion Sources in Table #1 | 0.6 pounds per million Btu heat input |
| Internal Combustion Engines in Table #1 | 0.6 pounds per million Btu heat input |

**5.4** **Sulfur dioxide limits.** In accordance with ARSD 74:36:06:02(2), the owner or operator shall not allow the emission of sulfur dioxide in excess of the emission limit specified in Table #3 for the appropriate permitted unit, operations, and process.

**Table #3**
**Sulfur Dioxide Emission Limit**

| Description | Emission Limit |
|---|---|
| External Combustion Sources in Table #1 | 3.0 pounds per million Btu heat input |
| Internal Combustion Engines in Table #1 | 3.0 pounds per million Btu heat input |

Compliance with the sulfur dioxide emission limit is based on a three-hour rolling average, which is the arithmetic average of three contiguous one-hour periods.

**5.5** **External combustion sources limit.** In accordance with ARSD 74:36:04:15(9), the owner or operator shall not allow the amount of natural gas consumed in the "External Combustion Sources" listed in Table #1 to exceed 1.030 million dekatherms per 12-month rolling period. Natural gas is assumed to provide 1.05 dekatherms of energy per thousand cubic feet of gas consumed.

**5.6 Internal combustion engine sources.** In accordance with ARSD 74:36:04:15(9), the owner or operator shall not allow the "Internal Combustion Engine Sources" listed in Table #1 to operate more than 200 hours per 12-month rolling period per unit.

**5.7 Circumvention not allowed.** In accordance with ARSD 74:36:04:31, the owner or operator may not install, use a device, or use a means that conceals or dilutes an air emission that would otherwise violate this permit. This includes operating a unit or control device that emits air pollutants from an opening other than the designed stack, vent, or equivalent opening.

**5.8 Minimizing emissions.** The owner or operator shall at all time, when practicable, maintain and operate all permitted units in a manner that minimizes air pollution emissions.

## 6.0 PERFORMANCE TESTS

**6.1 Performance test may be required.** In accordance with ARSD 74:36:11:02, the secretary may request a performance test. A performance test shall be conducted while operating the unit at or greater than 90 percent of its maximum design capacity, unless otherwise specified by the Secretary. A performance test that is conducted while operating at less than 90 percent of its maximum design capacity will result in the operation being limited to the percent achieved during the performance test. The Secretary has the discretion to extend the deadline for completion of the performance test required by the Secretary if circumstances reasonably warrant but will not extend the deadline past a federally required performance test deadline.

**6.2 Test methods and procedures.** The owner or operator shall conduct the performance test in accordance with 40 CFR Part 60, Appendix A, 40 CFR Part 63, Appendix A, and 40 CFR Part 51, Appendix M. The Secretary may approve an alternative method if a performance test specified in 40 CFR Part 60, Appendix A, 40 CFR Part 63, Appendix A, and 40 CFR Part 51, Appendix M is not applicable or required.

**6.3 Representative performance test.** In accordance with ARSD 74:36:07:01, as referenced to 40 CFR § 60.8(c), performance tests shall be conducted under such conditions as the Secretary shall specify to the owner or operator based on the representative performance of the unit being tested. The owner or operator shall make available to the Secretary such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in this permit.

**6.4 Submittal of test plan.** In accordance with ARSD 74:36:11:01, the owner or operator shall submit the proposed testing procedures to the Secretary at least 30 days prior to any performance test. The Secretary will notify the owner or operator if the proposed test procedures are approved or

denied. If the proposed test procedures are denied, the Secretary will provide written notification that outlines what needs to be completed for approval.

**6.5 Notification of test.** In accordance with ARSD 74:36:11:03, the owner or operator shall notify the Secretary at least 10 days prior to the start of a performance test to arrange for an agreeable test date when the Secretary may observe the test. The Secretary may extend the deadline for the performance test in order to accommodate schedules in arranging an agreeable test date.

**6.6 Performance test report.** In accordance with ARSD 74:36:04:15(10), the owner or operator shall submit a performance test report to the Secretary within 60 days after completing the performance test or by a date designated by the Secretary. The performance test report shall contain the following information:

1. A brief description of the process and the air pollution control system being tested;
2. Sampling location description(s);
3. A description of sampling and analytical procedures and any modifications to standard procedures;
4. Test results;
5. Quality assurance procedures and results;
6. Records of operating conditions during the test, preparation of standards, and calibration procedures;
7. Raw data sheets for field sampling and field and laboratory analyses;
8. Documentation of calculations;
9. All data recorded and used to establish parameters for compliance monitoring; and
10. Any other information required by the test method.

## 7.0 MONITORING

**7.1 Non re-settable clocks on internal combustion engine sources.** In accordance with ARSD 74:36:04:15(10), the owner of operator shall install and maintain a non re-settable clock on each of the "Internal Combustion Engine Sources" listed in Table #1. The clocks shall continuously record the hours the unit operates. If a non re-settable clock becomes inoperable when the unit is operating, the owner or operator shall maintain a daily log of the hours of operations and identify these hours in the monthly records.

## 8.0 PERMIT EXEMPTIONS

**8.1 Title V air quality permit exemption.** In accordance with ARSD 74:36:04:15(9), the owner or operator is exempt from needing a Title V air quality permit. The exemption is based on operational and air emission limits in this permit. Any relaxation in this permit that increases emissions greater than 95 tons per 12-month rolling period may require a Title V air quality permit before that change is initiated.

**8.2 PSD permit exemption.** In accordance with ARSD 74:36:04:15(9), the owner or operator is exempt from needing a Prevention of Significant Deterioration permit. The exemption is based on operational and air emission limits in this permit. Any relaxation in this permit that increases emissions greater than 95 tons per 12-month rolling period may require a Prevention of Significant Deterioration permit before that change is initiated.

## 9.0 NEW SOURCE PERFORMANCE STANDARD SUBPART IIII

**9.1 Emission standards for applicable generators.** In accordance with ARSD 74:36:07:88, as referenced to 40 CFR § 60.4205, the owner or operator shall not allow the emissions in excess of the emission limits listed in Table 9-1 for the appropriate stationary compression ignition engine.

**9.1 Emission standards for applicable generators.** In accordance with ARSD 74:36:07:88, as referenced to 40 CFR § 60.4205, the owner or operator shall not allow the emissions in excess of the emission limits listed in Table 9-1 for the appropriate stationary compression ignition engine.

Table 9-1 – NSPS Emission Limits [1]

| Unit | PM [2] | THC [3] | NOx [4] | CO [5] | NMHC and NOx [6] | Opacity |
|---|---|---|---|---|---|---|
| **Intcomb-7501** | 0.54 | 1.3 | 9.2 | 11.4 | - | - |
| Intcomb-920 | **0.20** | **-** | **-** | **3.5** | **6.4** | **20% during acceleration; 15% during lugging mode; and 50% during the peaks in either acceleration or lugging mode** |
| Intcomb-7263 | **0.54** | **-** | **-** | **3.5** | **10.5** | - |
| Intcomb-88490 | **0.54** | **-** | **-** | **3.5** | **10.5** | - |
| Intcomb-4040 | **0.20** | **-** | **-** | **3.5** | **6.4** | **20% during acceleration; 15% during lugging mode; and 50% during the peaks in either acceleration or lugging mode** |
| **Intcomb -7273** | **0.54** | **1.3** | **9.2** | **11.4** | **-** | |

[1] The emission limits are in grams per kilowatt hour
[2] PM = Particulate Matter
[3] THC = Total Hydrocarbons
[4] NOx = Nitrogen Oxides
[5] CO = Carbon Monoxide
[6] NMHC and NOx = Nonmethane Hydrocarbons and Nitrogen Oxides

**9.2 Fuel requirements for applicable generators.** In accordance with ARSD 74:36:07:88, as referenced to 40 CFR § 60.4207, the owner or operator shall meet the following fuel requirements to burn diesel fuel in the units listed in Table 9-1:

**1.** After October 1, 2007, the diesel fuel used in the stationary compression ignition engine must meet the following requirements
   **a.** Sulfur content of less than or equal to 500 parts per million (0.05%); and
   **b.** Centane index of greater than or equal to 40 or a aromatic content of less than or equal to 35 percent by volume
**2.** After October 1, 2010, the diesel fuel used in the stationary compression ignition engine must meet the following requirements
   **a.** Sulfur content of less than or equal to 15 parts per million (0.0015%); and
   **b.** Centane index of greater than or equal to 40 or a aromatic content of less than or equal to 35 percent by volume

After the specified deadlines, the owner or operator may petition the Secretary to burn diesel fuel that does not meet the fuel requirements noted in paragraph 1 or 2 if the purpose is to burn existing diesel fuel inventories. If approved, the approval is valid for six months.

**9.3 Monitoring requirements for applicable generators.** In accordance with ARSD 74:36:07:88, as referenced to 40 CFR § 60.4209, the owner or operator shall install a non-resettable hour meter prior to startup of the unit.

**9.4 Compliance requirements for applicable generators.** In accordance with ARSD 74:36:07:88, as referenced to 40 CFR § 60.4211 and 60.4214(b), the owner or operator shall comply with the following:

1. Operate and maintain the stationary compression ignition engine according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer.
2. Comply with the emission standards by using one of the following measures:
   a. Purchase an engine certified to meet the emission standards for the same model year and maximum engine power and maintain a copy of the certification. The engine must be installed and configured according to the manufacturer's specifications;
   b. Keep records of performance test results for each pollutant for test conducted on a similar engine;
   c. Keep records of engine manufacturer data indicating compliance with the standards;
   d. Keep records of control device vendor data indicating compliance with the standards;
   e. Conduct an initial performance test to demonstrate compliance with the emissions standards;
3. The generators may be operated during emergency operations and maintenance checks/readiness testing as recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company. The maintenance checks/readiness testing is limited to 100 hours per year.